

**JOINT**  
**PUBLIC NOTICE**

**CHARLESTON DISTRICT, CORPS OF ENGINEERS**

**69A Hagood Avenue**

**Charleston, South Carolina 29403-5107**

**and the**

**S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

**OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT**

**1362 McMillan Avenue, Suite 400**

**Charleston, South Carolina 29405**

**REGULATORY DIVISION**

Refer to: P/N #2005-2W-286-P (Supplement)

24 February 2006

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et seq.) an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

**KINDER MORGAN**

**C/O APPLIED TECHNOLOGY & MANAGEMENT, INC.**

**260 WEST COLEMAN BOULEVARD**

**MT. PLEASANT, SOUTH CAROLINA 29464**

for a permit to perform dredging and redevelopment at an existing industrial site in waters of

**THE SHIPYARD RIVER AND COOPER RIVER**

at 1801 Milford Street, Charleston, in Charleston County, South Carolina  
(Latitude: 32.82778; Longitude: 79.93833).

In order to give all interested parties an opportunity to express their views

**NOTICE**

is hereby given that written statements regarding the proposed work will be received by both of the above mentioned offices until

**12 O'CLOCK NOON, MONDAY, MARCH 27, 2006**

from those interested in the activity and whose interests may be affected by the proposed work.

This supplemental information is being provided to interested agencies and parties to allow review and comments on the proposed project previously noticed on September 16, 2005 and December 2, 2005. Information provided in the previous public notices remains valid.

Kinder Morgan (KM) proposes to increase/improve material conveyance and storage at the their Shipyard River Terminal (SRT) via the redevelopment of their existing facilities as well as adjacent facilities currently owned by Salmons Dredging Corporation (Salmons). The site is located in the City of Charleston along the Cooper River, between Herbert and Greenleaf Streets.

KM proposes to increase the volume of coal handled at the facility from approximately 3.5 million tons/year to approximately 10 million tons/year. KM will maintain the same volume of the other existing operations (liquids and other bulk cargo), however, some of the berthing and conveyance facilities for the various products will be relocated and redeveloped. No new materials are proposed to be handled at the project site; however, the location within the overall site where some materials are loaded, offloaded, and conveyed will change.

Environmental impacts associated with the proposed project include dredging, demolition and redevelopment of existing berthing facilities, and impacts to tidal wetlands. The applicant proposes to dispose of the dredged material in the Clouter Creek Disposal Area.

#### **COAL:**

Currently 3.5 million tons of coal per year are handled at Kinder Morgan. When the project is completed it is estimated that 10 million tons per year will be transferred through Kinder Morgan primarily to electric generating plants in South Carolina, North Carolina and Georgia. The coal pile after project completion is estimated to be approximately 600,000 tons which will cover approximately 20 acres, with an average height of 40 feet and a maximum height of 80 feet. In order to minimize dust levels, Kinder Morgan proposes to utilize dust suppression technologies which include:

- Telescoping product chutes (reducing the distance product has to travel before reaching the ground).
- Covered conveyor systems which transport products to storage
- Use of water-suppression systems to minimize dust

#### **VESSEL TRAFFIC:**

**Current Conditions:** In 2005, 33 coal vessels called on Kinder Morgan. Upon arrival at the terminal dock, the ship's main propulsion engine is shut down. An onboard generator then supplies power for lights, air conditioning, and vital ship functions (hotelling). The fuel demand for hotelling is approximately 20 gallons/hr.

A second onboard generator powers the ship's cranes used to unload the coal. The fuel demand for this generator is approximately 40 gallons/hour. The generators burn marine diesel fuel out of the ship's day tank. In 2005, a coal ship was at the dock 107 hours each call, on average.

**Post Project Conditions:** In order to supply the increased volume of coal handled at the site, ship traffic is anticipated to increase by 1 - 1.4 vessels/week. Currently, KM receives approximately 190 vessels per year of various products, this includes 33 vessels per year that supply coal. Approximately 92 coal vessels will call on Kinder Morgan per year after project completion. Upon arrival at the terminal dock, the ship's main propulsion engine is shut down. An onboard generator then supplies power for lights, air conditioning, and vital ship functions (hotelling). The fuel demand for hotelling is approximately 20 gallons/hr.

The coal will be unloaded using larger, electric powered cranes owned by Kinder Morgan. Shipboard cranes will no longer be used. Due to the larger, more efficient cranes, a coal ship will be at the dock an average of only 72 hours per call. The Proposed Project improvements are expected to result in a net decrease in approximately 80,000 gallons per year of marine diesel combustion.

#### RAIL TRAFFIC:

**On-site Train Movement.** Currently KM uses two small locomotives on site and an average of one unit train (one unit train equals 100 cars) is released from the site. Currently, a train must be broken into sections, loaded and re-hooked which takes approximately 12 hours. In this process each locomotive burns about 10 gallons of diesel fuel per hour. After construction, Kinder Morgan expects to use one large locomotive and will load and release an average of 2.6 unit trains of coal per day (260 cars). The process of breaking, loading and re-hooking 260 cars takes approximately 16 hours and the one large locomotive used for this process will burn approximately 20 gallons of diesel fuel per hour during the process. Thus, for trains, 112,000 gallons of diesel fuel will be combusted each year as opposed to 84,000 gallons currently.

**Off-site Train Movement.** KM conducted a survey of existing operations and an assessment of the anticipated change in noise and crossing time for trains with the Proposed Project. The delay at Meeting Street will be increased from 48 minutes per day to 52 minutes per day even though the number of trains will increase by 1.6 unit trains (160 cars) per day operating at the site. After trains leave the yard and accelerate to the posted speeds, it is anticipated that the trains will take approximately three minutes to clear each crossing. Since there are two major routes that these trains will use leaving Charleston; the average down line crossing delay should increase an average of less than three minutes.

At the property line of a residence near a rail car holding area, background noise levels were measured to be 50 dBa and increased to 65 dBa with a train moving at the site. Trains leaving the yard and crossing Meeting Street produced an 80 to 85 dBa reading which increased to 115 dBa when train horns were blown. Similar impacts would be expected at other crossings. Exposure to noise from trains would be limited to 2.6 unit trains per day (1.6 more than the current unit train (160 more cars) with an occurrence of less than one hour exposure per day to businesses and residences). Trains leaving the site travel via either Norfolk & Southern or CSX tracks. The sequence of at grade railroad crossings is as follows:

#### Railroad Crossing Information:

Norfolk Southern	CSX
Meeting St	Meeting Street
King St Extension	King Street Extension
Avon	Aida
Unnamed	Unnamed
Dorchester Rd	Dorchester Rd
Remount Rd	
Aviation Rd	
Jet Park	
Ashley Phosphate Rd	

At present there are three train routes out of Charleston (one Norfolk Southern and two CSX). Norfolk Southern has a speed limit of 20 mph until the Jet Park crossing and then trains may accelerate to 49 mph. The CSX line has similar speed requirements. For a 100 car train, the crossing delay at 20 mph would be approximately three minutes.

# **IMPACT SUMMARY:**

The following information summarizes the environmental, transportation and marine vessel impacts related to the proposed project:

**Environmental Impacts:** The following tables contain details regarding the site's wetlands, uplands, and ground survey findings. As currently proposed, 5.79 acres of U.S. waters (including 0.43 acre of tidal wetlands) will be impacted by the project. No freshwater wetlands will be affected by the plans.

**Table A-1: Type and Quantity of Materials to be Discharged**

Material	Project Component	Cubic Yards
Dirt/Topsoil		
Clean Sand	Railroad	4,350
Mud		
Clay		
Gravel/Rock/Stone	Railroad and Boat/Barge Landing Ramp	225
Concrete	Boat/Barge Landing Ramp	50
<b>Total</b>		<b>4,625</b>

**Table A-2: Type and Quantity of Impacts to U.S. Waters (including wetlands)**

Material	Project Component	Acres	Cubic Yards
Filling	Railroad, Boat/Barge Landing Ramp	0.38	4,625
Backfill and Bedding			
Landclearing			
Dredging or Excavation	Dredge Sites 1 and 2	5.44	121,000
Flooding			
Draining			
Shading	Catwalks, conveyor, bents	0.16	N/A
<b>Total</b>		<b>5.98</b>	<b>125,625</b>

**Table A-3: Type and Quantity of Impacts to Tidal Wetlands (Critical Area)**

Material	Project Component	Acres	Cubic Yards
Filling	Railroad	0.38	4,625
Backfill and Bedding			
Landclearing			
Dredging or Excavation	Dredge Site	0.13	10,000
Flooding			
Draining			
Shading	Catwalks, conveyor, bents	0.16	N/A
Total		0.67	14,625

**Transportation-related Impacts:**

- Increased ship traffic into Charleston Harbor would average no more than one to 1.4 ships per week (92 coal vessels per year) from those presently calling (33 vessels in 2005) on the Kinder Morgan/Allied site.
- The modified docking facilities and cargo handling equipment would result in decreased residence time for ships at berth and calculations of fuel usage for before and after development shows that a net decrease in mobile source emissions will occur at the facility.
- Kinder Morgan intends, within one year of development, to install electrically powered cranes on shore which would significantly decrease the auxiliary power unit demand of shipboard generating systems and lead to a reduction in emissions from ships at berth.
- The transportation of low sulfur coal from the site by rail would not increase truck traffic from the existing facility. The volume of coal to be taken by trains would be the equivalent of 1170 tractor trailer rigs per day leaving the site; however, this coal would be transported by an average of 2.6 unit trains per day (1 unit train = 100 cars), an increase of 1.6 unit trains (160 cars) from the current one 100 car train per day.
- The proposed project would add rail track on-site to avoid the need to cross Meeting Street to assemble the full train. The cumulative delay at Meeting Street would add an average of four minutes of train crossing delays at Meeting Street per day while allowing an average increase of 1.6 trains per day at the site. As there are two routes that trains would take from the facility, downline traffic delays from trains would average no more than 3 minutes per train leaving the site.

- The proposed project would allow more efficient transport of low sulfur and low metal coal to be imported into the region for use by electric generating plants, thus benefiting regional air and water quality. The coal will be shipped primarily to electric generating plants in South Carolina, Georgia, and North Carolina.

#### **Marine Vessel Loading:**

Ships calling at the facility normally turn off their main engines and operate an auxiliary power unit (APU) which burns diesel fuel to operate a generator to power electrical ship systems (such as lights, air conditioning, and other functions) while the main propulsion engine is shut down. The fuel demand is approximately 20 gallons per hour.

The design of the Proposed Project improvements will decrease the residence time of ships at the site and rely on shore power to operate the cranes. Thus, the average time at berth in 2005 was 107 hours per call whereas after the improvements, due to larger and more efficient cranes, each ship is expected to be at dock 72 hours per call. Even though there will be up to 1.4 additional ships per week, the proposed project is expected to reduce the total mobile emissions from marine cargo vessels.

#### **AVOIDANCE AND MINIMIZATION:**

Wherever possible, Kinder Morgan will reuse/redevelop existing structures; however, those that are not serviceable, such as the Salmons dock, will be reconstructed. Design modifications to avoid/minimize impacts to tidal wetlands and reuse or remove existing structures are ongoing. To date planned efforts include:

- Reducing the elevation of the top of the sheetpile bulkhead at Dock 3 to allow unimpeded tidal flow into the slough;
- Locating Dock 3 as far east as allowable given Federal channel offsets in order to reduce Critical Area impacts associated with berth dredging;
- Reducing the grade height of the new rail tracks by 2 vertical feet to reduce the fill/sideslope encroachment into adjacent tidal wetlands; and
- Removal of all but 3 existing liquid transfer pipelines at Dock 4 and re-using existing support structures (bents) for new conveyor. Conveyor transfer tower has been sited on existing derelict structures in tidal wetlands to avoid new impacts.
- "BMPs" associated with operation and maintenance of the conveyance system.
- Additional rail to minimize traffic impacts to Meeting Street.
- Use of electric cranes to increase offloading efficiency, maintain control over operations decrease air emissions and decrease residency times of ships.
- More efficient transport of cleaner burning coal to regional power plants.

**PRELIMINARY MITIGATION ALTERNATIVES:**


The applicant's proposed mitigation plan includes on-site mitigation opportunities to compensate for tidal marsh impacts and entail removal of derelict structures from the marsh and mudflats and excavation of high ground to allow revegetation of salt marsh. The following points summarize proposed recommendations:

1. Unshading 0.63 acre of unvegetated intertidal mudflat to provide enhancement credits for fill (0.31 acre), dredging (0.13 acre), and shading (0.16 acre) impacts;
2. Creating 0.31 acre of wetlands in existing filled uplands to account for fill impacts to low quality wetland (tidal ditch);
3. Creating 0.27 acre of tidal marsh with an enhanced buffer of 0.42 acre to account for fill and excavation impacts to fill and excavation of mid to high quality wetlands.

**NOTE:** Plans depicting the work described in this notice were distributed in the original public notice dated September 16, 2005. This notice and associated plans are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the

**U.S. Army Corps of Engineers  
ATTN: REGULATORY DIVISION  
69A Hagood Avenue  
Charleston, South Carolina 29403-5107**

If there are any questions concerning this public notice, please contact me at 843-329-8044 or toll free at 1-866-329-8187.

  
Robin D. Collier-Socha  
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